

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,860	10/19/2001	Arnaud Bourge	PHFR 010027	4949
24737	7590	08/05/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			AN, SHAWN S	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,860

Applicant(s)

BOURGE ET AL.

Examiner

Shawn S An

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8-11,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 3,6,7,12 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/18/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhu (5,870,146).

Regarding claims 1 and 8, Zhu discloses a device/method for transcoding an encoded signal into a secondary encoded signal, comprising:

a decoding unit (Figs. 2, 6, 9, 10, elements 20, 30) for decoding a current picture of the encoded signal, the decoding unit comprising an inverse Q circuit (Figs. 2, 9, 10, elements 42, 100) for producing a first transformed signal;

an encoding circuit for obtaining the secondary encoded signal comprising a Q circuit (Fig. 10, 78), wherein

the transcoding device (Fig. 10) further comprises a filter circuit (136) between the inverse Q circuit and the Q circuit.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2613

4. Claims 2, 5, 9, 11, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu (5,870,146).

Regarding claims 2, 5, and 9, 11, Zhu discloses prediction unit (Fig. 10, 48) for predicting a MC signal (59), and situated between the encoder and decoder, wherein the filter circuit is a spatial filter (136) for receiving the transformed MC signal and the first transformed signal (42), and delivering a filtered transformed signal to the Q circuit.

Zhu does not specifically disclose temporal filter and an inverse filter.

However, a temporal filter and an inverse filter are conventional filters that are well known in the art.

Therefore, it would have been obvious to a person of ordinary skill in the art employing a device/method for transcoding an encoded signal into a secondary encoded signal as taught by Zhu to replace the spatial filter with the conventional temporal filter so as to improve the temporal predictions in the transcoder, or to simply add an inverse filter to reconstruct the encoded signals in order to enhance prediction process.

Regarding claims 14-15, the Examiner takes official notice that a conventional transcoder for transcoding the video signals utilizing a computer program product and/or a set top box are well known in the art.

Therefore, it would have been obvious to a person of ordinary skill in the art to utilize either the software program approach in transcoding or the hardware (set top box) approach in transcoding as desired by design engineers.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu (5,870,146) in view of Cheung et al (6,178,205 B1).

Regarding claims 4 and 10, Zhu discloses prediction unit (Fig. 10, 48) for predicting a MC signal (59), and situated between the encoder and decoder, wherein the filter circuit is a spatial filter (136) for receiving the transformed MC signal and the first transformed signal (42), and delivering a filtered transformed signal to the Q circuit.

Zhu does not particularly disclose the spatial filter for receiving the first transformed signal and producing a filtered transformed signal, wherein the filtered transformed signal and the transformed MC signals are delivered to the Q circuit.

However, Cheung et al discloses a decoder comprising the spatial filter (Fig. 1, 140) for receiving the first transformed signal (115) and producing a filtered transformed signal (OUTPUT).

Therefore, it would have been obvious to a person of ordinary skill in the art employing a device/method for transcoding an encoded signal into a secondary encoded signal as taught by Zhu to replace the spatial filter with the Cheung et al's filter in such a way that the spatial filter receive the first transformed signal and produce a filtered transformed signal, thereby the filtered transformed signal and the transformed MC signals are delivered to the Q circuit as an alternative arrangement for improving the quality of video signals.

Allowable Subject Matter

6. Claims 3, 6-7, 12-13 are objected to as being dependent upon a rejected base claim 1, but would be allowable: if either claim 3 or claim 6 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims; and if claim 12 is rewritten in independent form including all of the limitations of the base claim 8 and any intervening claims.

Dependent claim 3 recites novel features comprising an equation (see claim 3).

Dependent claims 6-7 and 12-13 recite novel features comprising a prediction unit for predicting a MC signal, and situated between the encoder and decoder, wherein the filter circuit is a spatial filter for receiving the transformed MC signal and the first transformed signal, and delivering a filtered transformed signal to the Q circuit, wherein the spatial filter is only applied to intra-coded macroblocks contained in the current picture.

Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

A) Keith et al (5,493,513), Process, apparatus and system for encoding video signals using motion estimation.

B) Eyuboglu et al (6,297,825 B1), Efficient transcoding device and method.

C) Wang et al (6,434,197 B1), Multi-functional transcoder for compressed bit-streams.

D) Davis et al (5,451,954), Quantization noise suppression for encoder/decoder system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn S An whose telephone number is 703-305-0099. The examiner can normally be reached on Flex hours (10).

9. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SSA

Primary Patent Examiner

8/3/04